Cisco 2600 Series *Modular Access Router*

CISCO SYSTEMS EXTENDS ENTERPRISE-CLASS VERSATILITY, INTEGRATION, AND POWER TO REMOTE BRANCH OFFICES WITH THE CISCO 2600 SERIES MODULAR ACCESS ROUTER FAMILY.

The Cisco 2600 series shares modular interfaces with the Cisco 1600 and 3600 series, providing a cost-effective solution to meet today's remote branch office needs for applications such as:

- Secure Internet/intranet access
- Multiservice voice/data integration
- Analog and digital dial access services
- Virtual Private Network (VPN) access
- Virtual LANs (VLANs)

The modular architecture of the Cisco 2600 Series allows interfaces to be upgraded to accommodate network expansion or changes in technology as new services and applications are deployed. By integrating the functions of multiple separate devices into a single, compact unit, the Cisco 2600 Series reduces the complexity of managing the remote network solution. Driven by a powerful RISC processor, the Cisco 2600 Series provides the extra power needed to support the advanced quality of service (QoS) and security features required in today's remote branch offices.

The Cisco 2600 Series is available in six base configurations:

- Cisco 2610—One Ethernet port
- Cisco 2611—Two Ethernet ports
- Cisco 2612—One Ethernet port, on Token Ring port
- Cisco 2613—One Token Ring port
- Cisco 2620—One autosensing 10/100 Mbps Ethernet port
- Cisco 2621—Two autosensing 10/100 Mbps Ethernet ports

Each model also has two WAN Interface Card (WIC) slots, one Network Module slot, and an Advanced Integration Module (AIM) slot.

The WAN interface cards available for the Cisco 1600, 1720, 2600, and 3600 routers support a variety of serial, Integrated Services Digital Network Basic Rate Interface (ISDN BRI), and integrated channel service unit/data service unit (CSU/DSU) options for primary and backup WAN connectivity. Network modules available for the Cisco 2600 and 3600 series support a broad range of applications, including multiservice voice/data integration, analog and ISDN dial access, and serial device concentration. The internal Data Compression Advanced Integration Module for the Cisco 2600 Series off-loads the task of performing high-speed data compression. From the 2600's main CPU, allowing compressed data throughput of up to 8-Mbps while preserving external interface slots for other applications.

Figure 1 Cisco 2600 Series Modular Access Routers

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Key Benefits

The Cisco 2600 series supports the value of end-to-end Cisco network solutions with the following benefits:

- *Investment protection*—Because the Cisco 2600 series supports field-upgradable modular components, customers can easily change network interfaces without a "forklift upgrade" of the entire branch office network solution. The AIM slot of the Cisco 2600 platform further protects investments by offering the expandability to support advanced services such as hardware-assisted data compression and, in the future hardware-assisted data encryption.
- *Lower cost of ownership*—By integrating the functions of CSU/DSUs, ISDN Network Termination (NT1) devices, firewall modems, compression or encryption devices, and other equipment found in branch office wiring closets in a single, compact unit, the Cisco 2600 Series provides a space-saving solution that can be managed remotely using network management applications such as CiscoWorks and CiscoView.
- *Multiservice voice/data integration*—The Cisco 2600 Series reinforces Cisco's commitment to integrate multiservice voice/data integration capabilities to its product portfolio, allowing network managers to save long-distance interoffice calling costs and enabling next-generation voice-enabled applications such as integrated messaging and Web-based call centers.
- *Part of a Cisco end-to-end solution*—As part of Cisco's comprehensive end-to-end networking solution, the Cisco 2600 Series allows businesses to extend a cost-effective, seamless network infrastructure to the branch office.

Key Features and Benefits

The Cisco 2600 Series brings a cost-effective combination of versatility, integration, and power to remote branch offices with the key features listed in Table 1.

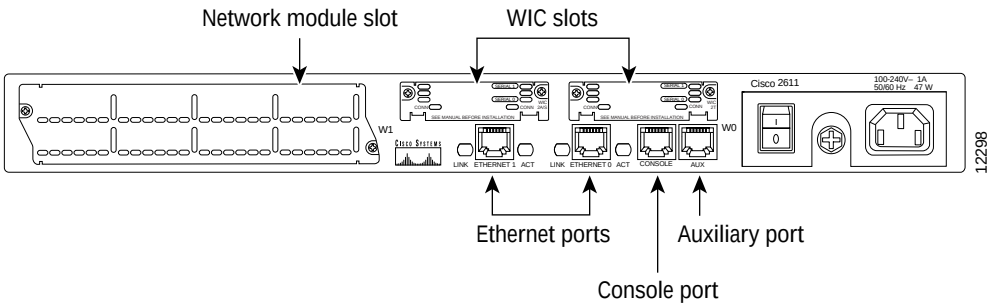
Table 1 Key Features and Benefits of the Cisco 2600 Series

Features	Benefits
Versatility and Investment Protection	
Modular Architecture	• Network interfaces are field-upgradable to accommodate future technologies while providing a solution to meet today's needs • Additional interfaces can be added on a "pay as you grow" basis to accommodate network growth • LAN and WAN interface configuration is easily customized for individual needs
WAN Interface Cards and Network Modules shared with Cisco 1600, 1720 and 3600 Series routers	• Reduced cost of maintaining inventory of Cisco 1600, 1720, 2600, and 3600 Series modular components • Lower training costs for support personnel
Advanced Integration Module Slot	• Expandability for integration of advanced high performance services such as hardware-assisted data compression or encryption
DC Power Supply option	• Allows deployment in DC power environments such as telecommunications carrier central offices
Enterprise-Class Performance	
High-Performance RISC Architecture	• Support for advanced QoS features such as the Resource Reservation Protocol (RSVP), Weighted Fair Queuing (WFQ), and IP Precedence to reduce recurring WAN costs • Enables security features such as data encryption, tunneling, and user authentication and authorization for VPN access • ICSA-certified Cisco IOS Firewall feature sets provide support for advanced security features such as Context-Based Access Control (CBAC), Java blocking, denial of service protection, and audit trails • Support for cost-effective, software-based data compression and data encryption • Integration of legacy networks via data link switching plus (DLSW+) and Advanced Peer-to-Peer Networking (APPN) • High-speed routing performance of up to 25,000 packets per second for maximum scalability
Full Cisco IOS® software support	• Supports the same IOS software Feature Sets as the Cisco 2500 and 3600 Series
Simplified Management	
Integrated CSU/DSU, analog modem and NT1 Options	• Enables remote management of all Customer Premise Equipment (CPE) elements for higher network availability and lower operational costs
Support for CiscoWorks and CiscoView	• Allows simplified management of all integrated and stackable components
Support for Cisco Voice Manager (CVM)	• Reduces the cost of deploying and managing integrated voice/data solutions
Enhanced Setup Feature	• Context-sensitive questions guide the user through the router configuration process, allowing faster deployment

Table 1 Key Features and Benefits of the Cisco 2600 Series (Continued)

Features	Benefits
Support for Cisco AutoInstall	• Configures remote routers automatically across a WAN connection to save cost of sending technical staff to the remote site
Part of Cisco's Enterprise Stackable Solutions	• Can be stacked with LAN switches such as the Catalyst 1900 or 2820XL for simplified management
VLAN Support	• Enables inter-VLAN routing via Cisco's Inter-Switch Link (ISL) protocol (Cisco 2620 and 2621)
Reliability	
Redundant Power Supply option	• RPS can be shared with other network components such as the Cisco Catalyst 1900 Series to protect the network from downtime due to power failures
Dial-on-Demand Routing	• Allows automatic backup of WAN connection in case of a primary link failure
Dual Bank Flash Memory	• Backup copy of the Cisco IOS software can be stored in Flash memory
Ergonomic Design	
LED Status Indicators	• Provide at-a-glance indications for power, RPS status, network activity, and interface status
All Network Interfaces Located on Back of Unit	• Simplifies installation and cable management for maximum uptime
Easy-to-Open Chassis Design	• Allows fast and easy access for installation of memory or AIM
Multispeed Fan	• Enables quiet operation in office environments

Figure 2 Cisco 2600 Series Back Panel View (Cisco 2611 shown)



Hardware/Software Options

Cisco 2600 Series routers offer a choice of Ethernet, Token Ring, and autosensing 10/100 Ethernet LAN interfaces. In addition, each model features two WAN Interface Card (WIC) slots, one Network Module slot, and an Advanced Integration Module (AIM) slot.

WAN Interface Card Options

The Cisco 2600 Series supports all WAN Interface Cards available for the Cisco 1600, 1720 and 3600 series, as well as two new dual-port serial WAN interface cards to maximize interface density and slot efficiency. The new dual-serial port WAN interface cards feature Cisco's new, compact, high-density Smart Serial connector to support a wide variety of electrical interfaces when used with the appropriate transition cable.

Figure 2: Dual-Port High-Speed Serial WIC

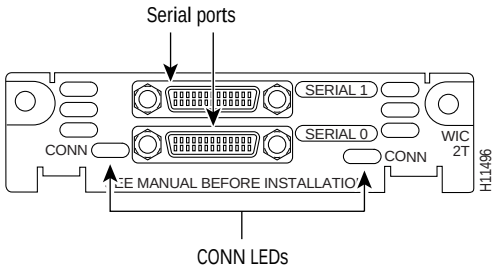


Figure 3: Dual-Port Async/Sync Serial WIC

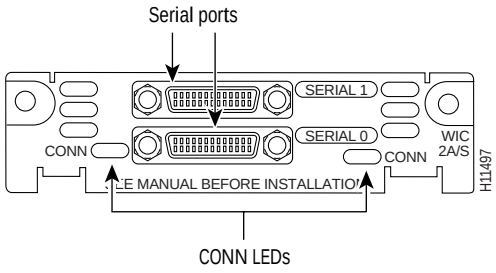


Table 2 WAN Interface Cards and Voice Interface Cards for Cisco 2600 Series

WIC-1DSU-T1	T1/Fractional T1 CSU/DSU(requires IOS software version 11.3(4)T or later)
WIC-1DSU-56K4	One-port four-wire 56/64-kbps CSU/DSU
WIC-1T	One-port high-speed serial
WIC 2T	Dual high-speed serial
WIC-2A/S	Two-port async/sync serial
WIC-1B-S/T	One-port ISDN BRI
WIC-1B-U	One-port ISDN BRI with NT1

Network Module Options

The Cisco 2600 Series supports the Network Modules listed in Table 3; these modules are shared with the Cisco 3600 Series.

Table 3 Network modules for Cisco 2600 Series

Module	Description
Serial Network Modules for Cisco 2600 Series (requires IOS software release 11.3(2) or later)	
NM-16A	16-port high density async network module
NM-32A	32-port high density async network module
NM-4A/S	Four-port low speed (128 Kbps max) async/sync serial network module
NM-8A/S	Eight-port low speed (128 Kbps max) async/sync serial network module
LAN Network Modules for Cisco 2600 series (requires IOS software release 11.3(4)T or later)	
NM-1E	One-port Ethernet network module
NM-4E	Four-port Ethernet network module
NM-1ATM-25Error! Bookmark not defined.	One-port ATM 25Mbps network module
Dial, ISDN and Channelized Serial Network Modules for Cisco 2600 series (requires IOS software release 11.3(4)T or later)	
NM-1CT1	One-port channelized T1/ISDN PRI network module
NM-1CT1-CSU	One-port channelized T1/ISDN PRI with CSU network module
NM-2CT1	Two-port channelized T1/ISDN PRI network module
NM-2CT1-CSU	Two-port channelized T1/ISDN PRI with CSU network module
NM-1CE1B	One-port channelized E1/ISDN PRI balanced network module
NM-1CE1U	One-port channelized E1/ISDN PRI unbalanced network module

Table 3 Network modules for Cisco 2600 Series (Continued)

Module	Description
NM-2CE1B	Two-port channelized E1/ISDN PRI balanced network module
NM-2CE1U	Two-port channelized E1/ISDN PRI unbalanced network module
NM-4B-S/T	Four-port ISDN BRI network module (S/T interface)
NM-4B-U	Four-port ISDN BRI with NT-1 network module (U interface)
NM-8B-S/T	Eight-port ISDN BRI network module (S/T interface)
NM-8B-U	Eight-port ISDN BRI with NT-1 network module (U interface)
NM-8AM	Eight analog modem network module
NM-16AM	Sixteen analog modem network module
Voice/Fax Network Modules for Cisco 2600 series (requires IOS release 11.3(2) or later)	
NM-1V1	One-slot voice/fax network module
NM-2V1	Two-slot voice/fax network module

1The voice/fax and ATM-25 network modules require a Cisco IOS Plus feature set.

Advanced Integration Module Options

Table 4 Voice Interface Cards for use with the Voice/Fax Network Modules

Module	Description
VIC-2FXS	Two-port FXS voice/fax interface card for voice/fax network module
VIC-2FXO	Two-port FXO voice/fax interface card for voice/fax network module
VIC-2E/M	Two-port E&M voice/fax interface card for voice/fax network module

The Data Compression AIM is the first product to take advantage of the Cisco 2600's internal Advanced Integration Module slot, ensuring that external slots remain available for components such as integrated CSU/DSUs, analog modems, or Voice/Fax Network Modules. The Data Compression AIM for the Cisco 2600 series delivers a cost-effective option for reducing recurring WAN costs and maximizing the benefit of the advanced bandwidth management features of the Cisco IOS software.

Table 5 Advanced Integration Module for the Cisco 2600 Series

Module	Description
AIM-COMPR2	Data Compression AIM for the Cisco 2600 Series (requires IOS software release 12.0(2) or later)

Table 6 Cisco IOS Software Feature Sets and Memory Requirements for Cisco 2600 Series IOS release 12.0(2)

	IP	IP/IPX/AT/DEC	Remote Access Services	Enterprise	Enterprise/ APPN
Base Feature Sets	4-MB Flash 20-MB DRAM	8-MB Flash 20-MB DRAM	4-MB Flash 16-MB DRAM	—	—
Firewall only no encryption	4-MB Flash 20-MB DRAM	—	—	—	—
Plus Feature Sets	8-MB Flash 24-MB DRAM	8-MB Flash 24-MB DRAM	—	8-MB Flash 32-MB DRAM	8-MB Flash 32-MB DRAM
Firewall and Plus Feature Sets	—	8-MB Flash 24-MB DRAM	—	—	—

Table 6 Cisco IOS Software Feature Sets and Memory Requirements for Cisco 2600 Series IOS release 12.0(2) (Continued)

	IP	IP/IPX/AT/DEC	Remote Access Services	Enterprise	Enterprise/ APPN
Plus 40 Feature Sets with 40-bit encryption	8-MB Flash 32-MB DRAM	—	—	—	—
Plus IPSec 56 Feature Sets with 56-bit IPSec encryption	8-MB Flash 24-MB DRAM	—	—	8-MB Flash 32-MB DRAM	8-MB Flash 32-MB DRAM
Firewall Plus IPSec 56 Feature Set with Firewall and 56-bit IPSec encryption	8-MB Flash 24-MB DRAM	—	—	8-MB Flash 32-MB DRAM	—

Note: Beginning in November, 1998, all Cisco 2600 Series modular access routers will ship with 24MB of DRAM memory and 8MB of Flash memory as the default configuration.

Cisco IOS Software

With support for the full range of available Cisco IOS feature sets, the Cisco 2600 Series supports the broadest range of network services in the industry. The Cisco 2600 Series supports Cisco IOS Release 11.3(2) and later.

Technical Specifications

- Processor: Motorola MPC860 40 MHz (Cisco 261X), Motorola MPC860 50 MHz (Cisco 262x)
- Flash Memory: 4 to 16 MB (32MB max. on Cisco 262x)
- System Memory (DRAM): 24 to 64 MB
- WAN Interface Card Slots: 2
- Network Module Slot: 1
- AIM Slot: 1
- Console/Aux Speed: 115.2-Kbps (maximum)
- Width: 17.5 in. (44.5 cm)
- Height: 1.69 in. (4.3 cm)
- Depth: 11.8 in. (30 cm)
- Weight (min): 8.85 lb. (4.02 kg)
- Weight (max): 10.25 lb. (4.66 kg)
- Power Dissipation: 72W (maximum)
- AC Input Voltage: 100 to 240 VAC
- Frequency: 47 to 64 Hz
- AC Input Current: 1.5 amps
- DC Input Voltage: -38V to -75V
- DC Input Current: 2 amps
- Operating Temperature: 32 to 104 deg; F (0 to 40 deg; C)
- Non-operating Temperature: -13 to 158deg; F (-25 to 70 deg; C)
- Relative Humidity: 5 to 95% non-condensing
- Noise Level (min): 38-dbA
- Noise Level (max): 42-dbA

The Cisco 2600 series conforms to a number of safety, EMI, immunity and network homologation standards. Details can be obtained through your Cisco reseller or account manager.

Year 2000 Compliance

For detailed Year 2000 compliance information on the Cisco 2600 series, reference Cisco's Year 2000 Compliance Web site at:
http://www.cisco.com/warp/customer/752/2000/index.shtml

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